

Amendments to the Specification

Please replace the paragraph beginning on Page 31, line 7 through Page 32, line 25, with the following amended paragraph.

As shown in Fig. 8, the creation of a list begins, after a start at 801, with a step 802 at which the hamming weight is stored in a variable Hamming. Then, at the next step 803, the bit count is stored in a variable MaxBit. Subsequently, at the next step 804, an array pos [j] where $j = 0$ to (Hamming -1) is initialized at values indicating the positions of bits in a bit array which each have a logic value of 1. A bit position can be any value in the range 0 to (MaxBit -1). Then, at the next step 805, an index num pointing to a slot in the bit-array list dat is initialized at 0. The dat bit-array list's slot pointed to by the index num will be used for storing a computed bit array at the next step 806. In addition, an index b used as the subscript of the array pos [b] in the following processing is initialized at -1. Subsequently, at the step 806, the bit array is computed and stored in the dat bit-array list' slot pointed to by the index num. Then, at the next step 807, the index num is incremented by 1. Subsequently, at the next step 808, the index b used as the subscript of the array pos [b] is ~~incremented by 1~~initialized at 0. The flow of the list creation then goes on to a step 809 to form a judgment as to whether or not the script b has not reached (Hamming -1), which is a subscript value corresponding to the bit array's highest-order bit having the logic value of 1. That is to say, the judgment is formed to determine whether or not pos [b] does not have the value indicating the position of the highest-order bit having the logic value of 1 in the bit array. If the subscript b has reached (Hamming -1), the flow of the list creation goes on to a step 812. If the subscript b has not reached (Hamming -1), on the other hand, the flow of the list

creation goes on to a step 810. At the next step 810, the bit array's higher-order bit position, that is, $(\text{pos}[b] + 1)$, is checked to form a judgment as to whether or not the bit at the higher-order position or the bit at $(\text{pos}[b] + 1)$ already has the logic value of 1. If the bit at the bit array's higher-order position already has the logic value of 1, the flow of the list creation goes on to the step 812. If the bit at the bit array's higher-order position or the bit at $(\text{pos}[b] + 1)$ has the logic value of 0, on the other hand, the flow of the list creation goes on to a step 811. At the step 811, the logic value of 1 in the bit array is shifted from the bit position $p[b]$ to the bit position $(p[b] + 1)$ and the flow of the list creation then goes back to the step 806 to create another bit array.